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EXAMINER	
SEKUL, MARIA LYNN	
ART UNIT	PAPER NUMBER
2461	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/580,543	ARKIN, OFIR	
	Examiner	Art Unit	
	MARIA L. SEKUL	2461	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 February 2011*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *76-96* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *76-96* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 May 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Status of Claims

1. **Claims 76-96** are pending. **Claims 47-75** are presently cancelled. **Claims 1-74** were previously cancelled.

Response to Arguments

2. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection. The claims are currently rejected under **Rosenberger (US PGPub 2004/0107219)**.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. **Claims 84 and 94** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to **claims 84 and 94**, the claim recites "wherein the queried nodes do not comprise detected nodes". This limitation is unclear because accordingly to base claim 76, in order to be a queried node, data must have been passively detected from a node, that is, a detected node; and the missing information to be obtained by querying is information relating to at least one of said one or more detected nodes. Therefore, it appears that the queried node must also be a detected node.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. **Claims 76-79, 82-84, 86-89 and 92-96** are rejected under 35 U.S.C. 102(e) as being anticipated by **Rosenberger (US PGPub 2004/0107219)**.

As to **claims 76, 86, 95, 96**, Rosenberger discloses a method of collecting information relating to a communication network and to nodes operating therein, the method comprising:

enabling passive detection of data conveyed by one or more nodes detected as operating in the communication network, said detection of data provided in a manner that is transparent to said one or more detected nodes, to yield passively detected data (at **Fig. 3A**, the wireless security component begins to passively monitor for network traffic from an unknown wireless device ; after having detected network traffic from an unknown wireless device ("detected node"), a device profile is generated for the device, **¶ 28-29**);

analyzing said passively detected data to identify missing information, wherein said missing information comprises missing information relating to at least one of said one or more detected nodes and missing information relating to said communication network (upon detecting activity from a wireless device that was not previously active -

where it is implicit that the detection of a not previously active wireless device was a result of "analyzing said passively detected data", and further because the device was previously undetected, then no information is currently known about the device, and is therefore "missing information" - at **Fig. 5**, step **504**, queries are sent to the unknown wireless device requesting Information from the unknown wireless device, e.g. device's operating system, MAC address, etc. ("missing information"), **¶ 37-40**);

analyzing at least one of said passively detected data and identified missing information to identify among nodes operating in said communication network one or more nodes to be queried for said missing information, to yield queried nodes (upon detected activity from a wireless device not previously active, i.e. based on "passively detected data"), queries are sent to the unknown wireless device ("queried node"), **¶ 38**); and

querying at least one of said identified queried nodes, thereby enabling collection of said missing information actively (queries are designed to elicit responses from the unknown wireless devices, which is both a "detected node" and a "queried node", which can be used to uniquely identify the unknown wireless device based on identifying characteristics in the response ("collection of said missing information actively"), **¶ 39**).

As to **claims 77 and 87**, Rosenberger discloses the method of Claims 76 and 86, respectively.

Rosenberger further discloses wherein said passively detected data comprise information selected from a group comprising: information relating to operating systems of detected nodes, information related to network running processes operating on the

detected nodes and node identification information (in **Fig. 5**, when a previously unknown wireless device activity is detected, queries are sent to the unknown wireless device is queried, **¶ ¶ 38**; in order to query the wireless device, it is implicit that node identification information was detected while passively monitoring the traffic in order to be able to send a query to the wireless device information ("node information ") to elicit additional information; it is further anticipated that a wireless device identifies itself, *see* ¶ 42 which discloses it is quite common for an unknown wireless device that comes within the range of a wireless access point and merely identifies itself).

As to **claim 78 and 88**, Rosenberger discloses the method of Claims 76 and 86, respectively.

Rosenberger further discloses wherein the missing information is selected from a group comprising: information relating to operating systems of respective nodes, node identification information, information related to network running processes operating on the respective nodes, information related to local running processes operating on the respective nodes, information relating to hardware components associated with the respective nodes, and topology information relating to physical topology of the comm93unication network (queries are sent to the unknown wireless device requesting Information from the unknown wireless device, e.g. device's operating system, MAC address, etc. ("missing information"), **¶ 37-40**).

As to **claims 79 and 89**, Rosenberger discloses the method of Claims 76 and 86, respectively.

Rosenberger further discloses wherein querying at least one of said identified queried nodes is provided if missing information matches one or more predefined conditions (multiple queries are sent to the wireless device to determine the unique device profile; based on the response from a first query ("predefined condition"), a second query is determined and sent; for example, based on a response to a request for the operating system, a specific request known to be supported by the reported operating system may follow, **¶ 39**; that is, the specific operating system discovered by the first query is the predefined condition which will invoke the second query).

As to **claims 82 and 92**, Rosenberger discloses the method of Claims 76 and 86, respectively.

Rosenberger further discloses wherein the queried nodes comprise merely detected nodes (upon detecting an unknown wireless device, queries are sent to the unknown wireless device only ("merely detected nodes"), **¶ 38**)..

As to **claims 83 and 93**, Rosenberger discloses the method of Claims 76 and 86, respectively.

Rosenberger further discloses wherein the queried nodes do not comprise detected nodes (a bridge/probe module may be directed to actively probe for wireless access points by broadcasting requests on the computer network that causes network devices to respond, **¶ 67**; the nodes who receive the broadcast request are not detected at the time of the SNMP message query, but once the node responds, it is a queried node and a detected node).

As to **claims 84 and 94**, Rosenberger discloses the method of Claims 76 and 86, respectively.

Rosenberger further discloses generating a query message corresponding to said missing information for conveying said query message to one or more queried nodes (queries are sent to the unknown wireless device using standard network protocols and queries, **¶ 38**);

receiving at least one response that corresponds to the query message (responses from the wireless device are received to the queries, **¶ 39**); and

processing the at least one response to retrieve information corresponding to said missing information (the responses are collected and analyzed, from which a device profile is generated, **¶ 39**).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. **Claims 80-81 and 90-91** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Rosenberger (US PGPub 2004/0107219)** in view of **Bankier et al. (US Patent No. 7,539,746)** ("Bankier").

As to **claims 80 and 90**, Rosenberger discloses the method of Claim 79 and 89, respectively.

Rosenberger does not explicitly disclose *wherein the predefined condition is characterized by a time interval passed after passive detection of data*.

Bankier, from the same or similar field of endeavor, teaches a system monitors transactions with a combination of active monitors and passive monitors. Passive monitors await certain error codes or timeout signals. If a response from a server should be received within a predetermined time period but is not received within the requisite time period, in accordance with the active monitoring, the node can actively query the server regarding the state of a transaction (**col. 6, lines 52-67**).

It would have been obvious to use the active query when information has not been detected passively within a certain time period with the method of Rosenberger for the purpose of improving collection of data in a timely manner.

As to **claims 81 and 91**, Rosenberger in view of Bankier discloses the method of Claim 80 and 90, respectively.

Bankier further discloses wherein the time interval varies for different types of missing information (defined policies can include conditions, e.g. time-out values for receiving responses) and actions taken when any of the specified policy conditions are

true, **col. 19, lines 42-49**; it is anticipated that more than each policy condition may have a different time-out value depending on the transaction being monitored).

9. **Claim 85** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Rosenberger (US PGPub 2004/0107219)** in view of **Wu (US Patent No. 5,185,860)**.

As to **claims 85**, Rosenberger discloses the method of Claim 84 and 94, respectively.

Rosenberger does not explicitly disclose *wherein the query message is one of the following: an ARP (Address Resolution Protocol) request; an ICMP (Internet Control Message Protocol) echo request; and a TCP-SYN request.*

Wu teaches querying a node to determine whether a node is active on the network. The status of a node is determined in intervals. When an interval has elapsed, an ICMP-echo message is sent to the node. (**Fig. 9; col. 7, lines 17-39**).

It would have been obvious to one skilled in the art at the time the invention was made to use the ICMP-echo message as taught in Wu with the method of Rosenberger. The motivation is to use widely implemented standard-based messages using design methodologies known in the art.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARIA L. SEKUL whose telephone number is (571)270-7636. The examiner can normally be reached on Monday-Friday 9:00 AM to 5:30 PM ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MARIA L SEKUL/
Examiner, Art Unit 2461

/Huy D Vu/
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